LOS ANGELES COUNTY WATERWORKS DISTRICTS



2004 ANNUAL WATER QUALITY REPORT

LOS ANGELES COUNTY WATERWORKS DISTRICT NO. 29, MALIBU

DEAR CUSTOMER:

The Los Angeles County Waterworks Districts are pleased to provide you with our 2004 Annual Water Quality Report. We are committed to serving you a reliable supply of high quality water that meets State and Federal standards. Our on-going efforts include increasing the capacity and reliability of the water system and ensuring the quality of our water supply through rigorous water quality testing.

There are two drinking water quality standards, Primary and Secondary Drinking Water Standards. Primary Drinking Water Standards are set for substances that are thought to pose a health risk at certain levels and are enforceable by law. Secondary Drinking Water Standards are set for substances that do not pose a health risk and are intended to control the aesthetic qualities related to the public acceptance of drinking water. Secondary Standards are not enforceable by law. We are pleased to inform you that during all of 2004, your drinking water met or exceeded all Primary and Secondary Drinking Water Standards.

This report is intended to provide you with a better understanding of your drinking water. It contains information about where your water comes from, how your water is treated and monitored, and what contaminants may be present in your water. Moreover, we have included source water assessments, results from our water quality testing, and general information about your drinking water.

Este informe contiene informacion muy importante sobre su agua potable. Traduzcalo o hable con alguien que lo entienda bien.

WATER QUALITY MONITORING

To ensure that water is safe to drink, the United States Environmental Protection Agency (USEPA) and the State Department of Health Services (DHS) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems.



To meet these regulations, the District has contracted with a

State-certified laboratory to conduct all water quality analyses. Analyses are performed on water samples taken from the distribution system. Several key locations within the distribution system have been selected for this purpose. Every week, each location is tested for bacteria, color, turbidity, odor, and disinfectant level to assure that you receive safe and high quality drinking water. All tests are conducted in a



State-certified laboratory using Federally approved testing methods. Our contracted laboratory is equipped with state-of-the-art instruments capable of detecting contaminants at very minute quantities.

PUBLIC PARTICIPATION AND CONTACT INFORMATION

The regular meetings of the Los Angeles County Board of Supervisors are held every Tuesday at 9:30 a.m. in the Board's Hearing Room located at 500 West Temple Street, Room 381B, Kenneth Hahn Hall of Administration in Los Angeles. The regular meeting of the Board held on the fourth Tuesday of each month is primarily for the purpose of conducting legally required public hearings on zoning matters, fee increases, special district proceedings, property transactions, etc. On Tuesdays following a Monday holiday, the meetings begin at 1:00 p.m.

The Los Angeles County Waterworks Districts welcome your comments on our Annual Water Quality Report. For questions or comments regarding water quality or this report, please contact Mr. Gordon Phair at (661) 942-1157 Ext. 247 or Ms. Denise Noble at (626) 300-3364. To view this report on the internet, please visit our website at http://ladpw.org/wsm/waterqualityrpt.cfm.

THE SOURCE OF YOUR WATER AND ITS TREATMENT



The Los Angeles County Waterworks District No. 29, Malibu, purchases its water from the Metropolitan Water District (MWD). MWD gets its water from the Sacramento River/San Joaquin Delta via the State Water Project and from the Colorado River Aqueduct beginning at Lake Havasu. The District also has emergency connections with the Los Angeles Department of Water and Power (LADWP) and Las Virgenes Municipal Water District.

The water from MWD is treated at their Joseph Jensen Filtration Plant using conventional treatment methods, which include coagulation, flocculation, sedimentation, and filtration. The water is then disinfected to kill any remaining microorganisms, such as bacteria, and reduce the potential for their regrowth in the distribution pipes.



SOURCE WATER ASSESSMENT

n December 2002, the MWD completed a source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to recreation, urban/storm water runoff, increasing urbanization in the watershed, and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation, and wastewater.

A copy of the entire assessment can be obtained by contacting MWD by phone at (213) 217-6850.

CAPITAL IMPROVEMENTS

In June 2004, the Encinal Canyon Road Watermain Replacement Project (Phase 1) was awarded to A.A. Portanova and Sons. The project consisted of replacing and upgrading approximately 4,100 linear feet of old, deteriorated, and undersized water mains, with 12-inch

diameter cement mortar lined and coated steel pipe along Pacific Coast Highway and Encinal Canyon Road. This project was completed in February 2005.

In July 2004, the construction of the Topanga–Fernwood Pipeline Replacement Project was completed at a cost of \$1.9 million. The project replaced approximately 3,800 linear feet of existing water main with 16-inch diameter steel pipe in Topanga Canyon Boulevard between Topanga Forks Pump Station and Fernwood Pacific Drive.

The construction of the 10-inch bypass at PCH was also completed in July 2004 at a cost of approximately \$980,000. The bypass consists of three parallel 10-inch diameter pipelines that can be used to convey water to the west end of Malibu in the event of a break in our 30-inch diameter transmission main between Big Rock Drive and Tuna Canyon Road.



WATER QUALITY DATA

The table below lists all drinking water contaminants that were detected during the 2004 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The District tests for bacteria, trihalomethanes, haloacetic acids, and chlorine regularly in the distribution system and are reported below. The State requires us to monitor certain contaminants less frequently than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, may be more than one year old.

PARAMETER	UNITS	State or Federal MCL [MRDL]	PHG (MCLG) [MRDLG]	RANGE	AVERAGE	MAJOR SOURCES IN DRINKING WATER				
PRIMARY STANDARDS — MANDATORY HEALTH-RELATED STANDARDS										
ORGANIC CONTAMINANTS										
ACRYLAMIDE	NA	Π	(0)	Π	Π	Water treatment chemical impurities				
EPICHLOROHYDRIN	NA	Π	(0)	Π	Π	Water treatment chemical impurities				
INORGANIC CONTAMINANTS										
ALUMINUM	ppb	1000	600	ND-55	ND	Residue from water treatment process; natural deposits; erosion				
FLUORIDE	ppm	2	1	0.10-0.12	0.11	Erosion of natural deposits; water additive for tooth health				
NITRATE (AS N)	ppm	10	10	0.52-0.72	0.61	Runoff and leaching from fertilizer use; sewage; natural erosion				
SECONDARY DRINKING WATER STANDARDS										
CHLORIDE	ppm	500	NA	65-77	71	Runoff/leaching from natural deposits; seawater influence				
COLOR	Units	15	NA	2-3	3	Naturally occurring organic minerals				
CORROSIVITY (LANGELIER INDEX)	SI	NON-CORROSIVE	NA	0.06-0.14	0.09	Elemental balance in water; affected by temperature, other factors				
ODOR THRESHOLD	Units	3	NA	3	3	Naturally occurring organic materials				
SPECIFIC CONDUCTANCE	μS/cm	1600	NA	479-512	500	Substances that form ions in water; seawater influence				
SULFATE	ppm	500	NA	39-56	46	Runoff and leaching from natural deposits; industrial wastes				
TOTAL DISSOLVED SOLIDS (TDS)	ppm	1000	NA	266-286	275	Runoff and leaching from natural deposits; industrial wastes				
TURBIDITY**	NTU	5	NA	0.05-0.06	0.05	Soil runoff				
RADIOACTIVE CONTAMINANTS										
BORON	ppb	NA	AL=1000	150-180	160	Runoff/leaching from natural deposits; industrial wastes				
VANADIUM	ppb	NA	AL=50	ND-3.40	ND	Naturally-occurring; industrial waste discharge				
GROSS ALPHA	pCi/L	15	NA	ND	ND	Erosion of natural deposits				
GROSS BETA	pCi/L	50	NA	ND-6.20	4.90	Decay of natural and man-made deposits				
ADDITIONAL CONSTITUENTS OF INTEREST										
ALKALINITY	ppm	NA	NA	79-84	81	Leaching from natural deposits				
CALCIUM	ppm	NA	NA	22-24	23	Leaching from natural deposits				
HARDNESS	ppm	NA	NA	106-116	110	Leaching from natural deposits				
MAGNESIUM	ppm	NA	NA	12.50-13.50	13	Leaching from natural deposits				
NITROSODIMETHYLAMINE	ppt	NA	AL=9	ND-5.9		By-product of drinking water chlorination; industrial processes				
pH***	pH Units	NS	NS	8.30-8.40	8.30	Natural acidity/alkalinity of water				
POTASSIUM	ppm	NA	NA	2.50-3.00	2.70	Leaching from natural deposits				
SODIUM	ppm	NA	NA	52-56	54	Leaching from natural deposits				
TOC (p)	ppm	Π	NA	2.00-2.60	2.20	Various natural and man-made sources				
TURBIDITY	NTU	5	NA	0.07	0.07	Soil runoff				

^{**} A measure of cloudiness; high turbidity can hinder the effectiveness of disinfectants

^{***} Recommended 6.5 - 8.5 with respect to corrosion control

DISTRIBUTION SYSTEM WATER QUALITY										
PARAMETER	PHG or MCLG	MCL	RANGE OF DETECTION	AVERAGE LEVEL	TYPICAL SOURCE OF CONSTITUENT					
TOTAL COLIFORM BACTERIA (# of monthly positive samples)	0	5%	ND - 1.85%	ND	Naturally present in the environment					
DISINFECTANTS & DISINFECTION BY-PRODUCTS	MCLG or [MRDLG]	MCL or [MRDL]	RANGE OF DETECTION	HIGHEST 4- Quarterly average	TYPICAL SOURCE OF CONSTITUENT					
TOTAL CHLORINE (ppm)	[4.0]	[4.0]	0.08 - 2.40	1.84	Water Treatment Disinfectant used to kill microbes					
TOTAL TRIHALOMETHANES (ppb)	NS	80	30.20 - 82.80	63.37	Byproduct of drinking water chlorination					
HALOACETIC ACIDS (ppb)	NS	60	1.10 - 31.00	21.19	Byproduct of drinking water disinfection					
RESIDENTIAL TAP WATER QUALITY										
LEAD AND COPPER (UNITS)	PHG	ACTION LEVEL	RANGE OF DETECTION	90th % LEVEL	TYPICAL SOURCE OF CONSTITUENT					
COPPER (ppm)	0.17	1.3	0 - 0.21	0.15	Corrosion of plumbing and erosion of natural deposits					
LEAD (ppb)	2	15	0	0	Corrosion of plumbing and erosion of natural deposits					

TERMS AND ABBREVIATIONS USED IN THE WATER QUALITY DATA TABLE

Maximum Contaminant Level (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the PHGs and MCLGs as is economically or technologically feasible.

Maximum Contaminant Level Goal (MCLG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the USEPA.

Public Health Goal (PHG) is the level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL) is the level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.

Maximum Residual Disinfectant Level Goal (MRDLG) is the level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLs are set by the USEPA.

Primary Drinking Water Standards (PDWS) are MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Regulatory Action Level (AL) is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow

Treatment Technique (TT) is a required process intended to reduce the level of a contaminant in drinking water.

ppm = parts per million (milligrams per liter)
ppb = parts per billion (micrograms per liter)
pci/l = picoCuries per liter

pCi/L = picoCuries per liter
SI = Saturation Index (Langelier)

NA = Not Applicable
ND = None Detected

NS = No Standard

NTU = Nephelometric Turbidity Unit
MFL = Million Fibers per Liter

µmhos/cm = micromhos per centimeter

ADDITIONAL INFORMATION

s part of the Districts' on-going water quality monitoring program, we collect and analyze between 48 and 60 routine total coliform bacteria and disinfection residual samples from the District 29 and Marina del Rey distribution system each month. However, in November 2004, we only collected and analyzed 21 routine samples. As a result, the Districts received a citation from the State Department of Health Services. This incident occurred as a result of a misunderstanding by the laboratory to discontinue performing other water quality analyses. Although, routine samples were missed, fortunately, the Districts analyzed an additional 143

disinfection residual samples during the same period for other water quality purposes. All samples showed disinfection residual levels above the levels required under drinking water regulations.

In response to this incident, we notified our customers in your District directly by mail and published a notification in the <u>Daily News</u> Newspaper. To ensure that this type of incident does not recur, we have instructed our laboratory to only accept written instructions signed by management for changes in sampling procedures. As part of our new procedures, the Districts' staff is also checking routine samples daily via electronic results sent by the laboratory.

CONTAMINANTS THAT MAY BE PRESENT IN WATER

The sources of drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over land surface or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or human activity. Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, that can be naturally occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential use.

Organic chemical contaminants, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.

Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure tap water is safe to drink, the USEPA and DHS prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DHS regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

THE QUALITY OF YOUR WATER

ead and Copper: During 2002, we conducted lead and copper sampling from several high-risk homes in the District as required by DHS. The 90th percentile result for copper was 0.15 milligrams per liter and below detectable levels for lead. These results are well below the regulatory Action Levels for lead and copper in drinking water. The next round of lead and copper monitoring is scheduled for 2005.

Trihalomethanes: Some people who use water containing trihalomethanes in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.

Cryptosporidium: Cryptosporidium is a microscopic organism that causes a gastro-intestinal disease called cryptosporidiosis which may cause diarrhea, headache, abdominal cramps, nausea, vomiting, and low grade fever. The infectious microorganism can be transmitted through ingestion of contaminated food, drinking water, or by direct contact with the fecal matter of infected persons or animals.

The chance of its presence in the water supply is extremely small because it is being monitored on a regular basis and very low levels, hundreds of times lower than those reported in other parts of the Country, have been detected in untreated water. Multiple-barrier treatment which includes coagulation, flocculation, filtration, and disinfection at MWD treatment plants further minimize the chance of its presence in treated water.

While the general public is at a very low risk of contracting Cryptosporidium, immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risks of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

BOTTLED WATER, HOME TREATMENT DEVICES, AND SOFTENERS

ottled water need not be purchased for health reasons, since tap water meets the Federal and State drinking water standards. If taste is an issue, bottled water might be the answer, but keep in mind that it is over 1,000 times more expensive than tap water.

Installation of a home treatment unit is a personal matter. These devices are not required to make the water meet the Federal and State drinking water standards. In fact, if not properly maintained, these devices may actually cause water quality problems. However, some people are concerned about the taste of their drinking water. If taste is an issue, then a home treatment unit might be appropriate. All units require maintenance and should be bought from a reputable dealer. They should also be tested and validated against accepted performance standards like those used by the National Sanitary Foundation (NSF).

Hardness in drinking water is caused by two non-toxic minerals: calcium and magnesium. Hard water reduces the amount of lather or suds produced by soap. Hard water also tends to leave deposits such as rings in the bathtub, scales on cooking pots and irons, and spots on glassware. At a hardness level above 120 milligrams per liter, a water softener might be considered to reduce deposits in the hot water system and to make washing easier. Distilled water may be used in place of drinking water in irons to prevent deposits.

Water softeners generally replace the non-toxic hardness minerals in the water with sodium. Although the amount of sodium produced is relatively insignificant in comparison to the sodium found in food, people with sodium restricted diets should consult their doctor or install a softener for their hot water supply only.



WATER CONSERVATION INFORMATION

Water is an essential resource, not a commodity. In Southern California, our arid climate limits our fresh water supply. Conserving water, or being "water wise," protects our natural water supplies, reduces the risk of water shortages during spring and summer months, and reduces your water bill. Water conservation is not as complicated or demanding as you might think.

In addition to protecting the quality of water delivered to you, we also promote and implement water conservation programs in your area. You can conserve water at home and save money by observing the following practical guidelines:

- Water the lawn as necessary during early morning hours and save 30 to 50 gallons per day.
- Run your dishwasher or washing machine with a full load and save 300 to 800 gallons every month.
- Sweep your sidewalks and driveways instead of hosing them to save about 150 gallons each time.
- Install a low flow toilet or use a water displacement device in your existing toilet and save 3.5 to 4.5 gallons of water on every flush.
- Install a low-flow shower head and save up to 1800 gallons per person per year.
- Visit www.h20use.org or http://ladpw.org/wsm/ conservation/ for practical "how-to" information on water conservation.

- Call (866) 648-2925 to request a survey of your normal water use and recommendations for water conserving measures to reduce your usage.
- Check your pipes and faucets regularly for leaks and repair them promptly. Call our office at 1-800-675-4357 to report leaks in our system.
- Evaluate your outdoor landscaping and water use. About two-thirds
 of residential water is used for landscaping purposes. Choose
 landscaping that is native to your surroundings and learn how
 much and when to irrigate it.
- Attend a Smart Gardening Workshop.
- Contact West Basin Municipal Water Districts at (310) 217-2411 to request information on free ultra-low-flush toilets or rebates on high-efficiency clothes washers.

If you have any questions or comments regarding water conservation, visit www.888cleanLA.com. You may also call 1-888-CLEANLA or contact Mr. David Rydman at (626) 300-3351.